



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

December 11, 2013

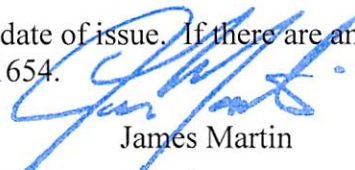
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-2103116, issued to EQT PRODUCTION COMPANY, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: 654101 CAIN 1063
Farm Name: STATE OF WEST VIRGINIA
API Well Number: 47-2103116
Permit Type: Plugging
Date Issued: 12/11/2013

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

CK 16891
10060
2103116P
Date: Oct. 31, 2013
Operator's Well
Well No. 654101 Cain #1063
API Well No.: 47 021 - 03116

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

Well Type: Oil _____ Gas X Liquid Injection _____ Waste Disposal: _____
If Gas, Production _____ X Or Underground storage _____ Deep _____ Shallow X

Elevation: 1198 Watershed: Long Lick Run of Upper Two Run of Cedar Creek of Little Kanawha River
Location: Center 01 County: Gilmer 21 Quadrangle: Tanner 7.5' 634
District: _____

Well Operator EQT Production Company
120 Professional Place
Address: Bridgeport, WV 26330

7) Designated Agent: Rex C. Ray
Address: 120 Professional Place
Bridgeport, WV 26330

Oil & Gas Bryan Harris
Name: P.O. Box 157
Address: Volga, WV 26238

9) Plugging Contractor:
Name: HydroCarbon Well Service
Address: PO BOX 995
Buckhannon, WV 26201

Work Order: The work order for the manner of plugging this well is as follows:

See Attachment for details and procedures.

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Office of Oil and Gas

DEC 05 2013

WV Department of
Environmental Protection

OFFICE USE ONLY

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector

Bryan Harris

Date 12-11-13

PLUGGING PROGNOSIS - Weston

Cain, A.A. # 1063 (654101)

GILMER, COUNTY, WEST VIRGINIA

API # 47-021-03116

Center District

BY: Craig Duckworth

ELEV: 1198'

DATE: 10/25/13

CURRENT STATUS:

10" csg @ None Reported
 8 1/4" csg @ 710'
 6 5/8" csg @ None Reported
 3" tbg @ 2067'

TD @ 2067'**Fresh Water @ None Reported****Salt Water @ None reported****1st Salt Sand @ 937'** (estimate from 021-03119) **Coal @ None reported****Gas shows @ 1785' & 1995'** Sands unknown**Oil Shows @ None Reported****Stimulation: None Reported**

1. Notify State Inspector, **Bryan Harris 304-553-6087**, 24 hrs. Prior to commencing operations.
2. Attempt to pull 3" tbg. If unable to pull, Free point and shoot at free point.
3. TIH w/ tbg @ 1995'; Set 260' C1A Cement Plug @ 1995' to 1735' (Gas shows @ 1995' & 1785')
4. TOOH w/ tbg @ 1735'; gel hole @ 1735' to 937'.
5. TOOH w/ tbg @ 937'; Set 100' C1A Cement Plug @ 937' to 837' (Salt Sand @ 937')
6. TOOH w/ tbg @ 837'; gel hole @ 837' to 760'.
7. TOOH w/ tbg @ 760'; Set 100' C1A Cement Plug @ 760' to 660' (8 1/4" csg set 731')
8. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf. all FW, Coal, Oil and Gas shows below 8 1/4" cut. Do not omit any plugs
9. TOOH w/ tbg @ 660'; gel hole @ 660' to 200'
10. TOOH w/ tbg @ 200'; Set 200' C1A Cement Plug @ 200' to Surface
11. Top off as needed
12. Set Monument to WV-DEP Specifications
13. Reclaim Location & Road to WV-DEP Specifications

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 Office of Oil and Gas

NOV 01 2013

WV Department of
 Environmental Protection

CARNEGIE NATURAL GAS COMPANY

Map Sheet No. _____ RECORD OF WELL Well No. 2103116P
 Drilled on S.S. Miller, Farm of 130 Acres, situa 654616
 Center Township Gilmer County Lease No. 519
 Gilmer Shipping Point District Foreman
 RIG WELL

Located Nov. 29, 1922 Commenced Drilling June 15, 1923
 Notified Gen'l Office Notified Gen'l Office
 Commenced December 16, 1922 Completed Drilling July 31, 1923
 Completed December 24, 1922 Notified Gen'l Office
 Contractor Jhon Craig, Contractor C.V. McCall & Co.,
 Address Clarksburg, W. Va., Address Pittsburgh, Pa.,

ROCK FORMATION	TOP	BOTTOM	REMARKS	PRESSURE AND VO	
Conductor		13	ELEVATION 965'	1/2 Minute	8
Mapleton Coal				1 "	13
Pittsburgh Coal				2 "	18
Little Dunkard	355	375		3 "	23
Big Dunkard	480	512		4 "	27
Gas Sand	774	890		5 "	
1st Salt Sand	950	990		10 "	
2nd Salt Sand	1010	1155	Gas show 1035	15 "	
Maxlon Sand	1488	1545		30 "	
Little Lime	1580	1620	Gas at 1526 to 1530	1 Hour	
Pencil Cave	1620	1630		Rock	200
Big Lime	1630	1680		Size of {	Tubing 2 Casing
Big Injun	1680	1790	alt Gas 1700		
Gantz Sand				Vol. by Water	12/100
50 Foot Sand				" " Mercury	
30 Foot Sand				" " Pressure	
Gordon Stray					
Gordon Sand					
4th Sand					
5th Sand			1/19/42. HOLE FILLED UP TO 1585'		
Bayard Sand					
Elizabeth					
Speechley					
Bradford					

water pumped with up right boiler

Total Depth ~~1790~~ 1585 Feet at \$ per Foot \$

Carnegie Nat Gas Co,

Gas Furnished at

Cents per Foot

CASING RECORD

SIZE	CHARGED TO WELL		PUT IN WELL		PULLED		LEFT IN WELL		TRANSFERRED		LEFT AT WELL		PACKER
	Feet	In.	Feet	In.	Feet	In.	Feet	In.	Feet	In.	Feet	In.	
10	160		150		150		None				160		Kind Hook wall
8 1/2	700		687		1556		687				105		Size 8 1/2 by 3
6 3/8	1715		1656		1656		None				1715		Set at 1105
5	200		200				200						WELL SHOT
2	1400		1195				1195				205		By Marotta torp
													With 15 Qts. at

Casing Cemented in Well _____ by _____ Comp

2103116 P
Cain 1063
654101
021-03116

213M330

GIE NATURAL GAS COMPANY

REPORT ON DEFECTIVE WELL

Lease No. E-9228-19

GLENVILLE

N. ~~XXXXXXXXXX~~ W. $\frac{1}{4}$

Center District, Gilmer Co. W. Va.

Toll Gate

District

Rock 320#	Test Taken for This Report Nov. 18th. 1936	Rock 200#
n 2 nd Opening	Open Flow 20/10	Water in 1st Opening

CORD OF CASING AND TUBING IN THIS WELL

Inch **7 1/2** 6 3/4 Inch **None** 5 1/2 Inch **None** Tubing: **2067** of **3rd** Inch

HISTORY OF WELL

Original Depth 2067	Present Depth 2067
Sands at Depth of 1785 1996	Condition of Rig None
Now Making Weekly	bbl. Daily by None
Amount of Water ?	Amount of Oil None
Result	Result
Size of Shot	Result

Move Rig from Jackson #3-1416, pull tubing and Re-Pack with salt water and gas is now blowing open from several S. B. Casing head on this well but the 8 1/4 casing would

J. M. Y... Foreman

Robert M. Miller Division Superintendent

As above

Chas. J. ... Division Superintendent

COPY

WW-4-A
Revised 6/07

- 1) Date: Oct. 31, 2013
 2) Operator's Well Number
654101 Cain #1063
 3) API Well No.: 47 021 - 03116
 State County Permit

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
 NOTICE AND APPLICATION TO PLUG AND ABANDON WELL**

4) Surface Owner(s) to be served:	5) (a) Coal Operator:
(a) Name <u>State of West Virginia</u> ✓	Name <u>None</u>
Address <u>Cedar Creek State Park</u>	Address _____
<u>2947 Cedar Creek Road</u>	_____
<u>Glenville, WV 26351</u>	_____
(b) Name <u>Larry E and Linda M Carder</u> ✓	(b) Coal Owner(s) with Declaration ✓
Address <u>529 WV Hwy 5 SE</u>	Name <u>Peggy Ann Cain</u>
<u>Glenville, WV 26351</u>	<u>P.O. Box 394</u>
_____	Address <u>Glenville, WV 26351</u>
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Bryan Harris</u> ✓	(c) Coal Lessee with Declaration
Address <u>P.O. Box 157</u>	Name <u>None</u>
<u>Volga, WV 26238</u>	Address _____
Telephone <u>304.553.6087</u>	_____
_____	_____

TO THE PERSONS NAMED ABOVE:

You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
 (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Division of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator:
 B
 Its
 Address:
 Telephone:
 My Commission Expires: 8-24-22

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
 Pamela Sykes
 EQT Production
 PO Box 280
 Bridgeport, WV 26330
 My Commission Expires Aug. 24, 2022

Subscribed and sworn before me this 31 day of Oct., 2013

My Commission Expires: 8-24-22

EQT Production Company

Victoria J. Roark

Permitting Supervisor

PO Box 280

Bridgeport, WV 26330

(304) 848-0076

day of Oct., 2013

Notary Public

RECEIVED
 Office of Oil and Gas

The Office of Oil & Gas processes your personal information, such as name, address and phone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WV Department of
 Environmental Protection

WW-9
Revised 2/03

Page ____ of ____
2) Operator's Well Number
654101 Cain #1063
3) API Well No.: 47 021 - 03116

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE**

Operator Name: EQT PRODUCTION COMPANY OP ID: _____

Watershed: Long Lick Run of Upper Two Run of Cedar Creek of Little Kanawha River Quadrangle: Tanner 7.5'

Elevation: 1198 County: Gilmer District: Center

Description of anticipated Pit Waste: Formation Fluids

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes___ No X

Will synthetic liner be used in the pit? Yes Is so, what ml.? 30 ml

Proposed Disposal Method for Treated Pit Wastes:

- ☒ Land Application
☐ Underground Injection - UIC Permit Number _____
☐ Reuse (at API Number) _____
☐ Offsite Disposal Permit #. _____
☐ Other: Explain _____

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. _____

If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used? _____

Will closed loop system be used? _____

Drill Cuttings disposal method? Leave in pit, landfill, remove offsite, etc. _____

If left in pit and plan to solidify what medium will be used? Cement, Lime, sawdust _____

Landfill or offsite name/permit number? _____

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any terms or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Victoria Roark*

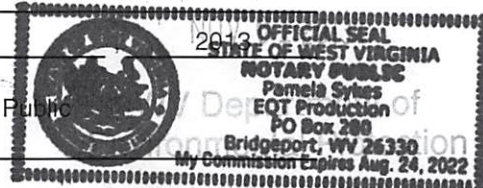
Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

Subscribed and sworn before me this 31 day of Oct.

My Commission Expires 8-24-22

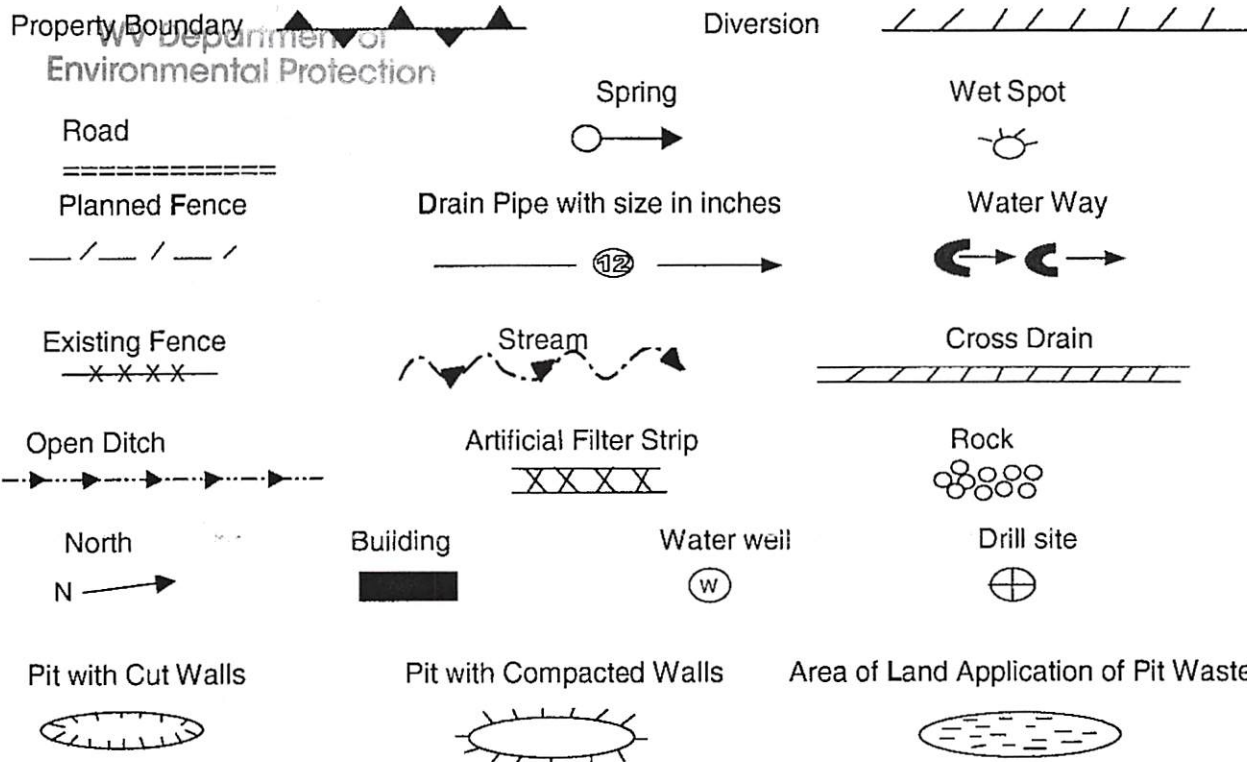
Notary Public



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DEC 05 2013

LEGEND



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH 5.8

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20) or equivalent 1/3 ton lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre or hydroseed.

SEED MIXTURES

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

ATTACH:

Drawing(s) of road, location, pit and proposed area for land application.

Photocopies section of involved 7.5' topographic sheet.

Plan approved by: [Signature]

Comments: _____

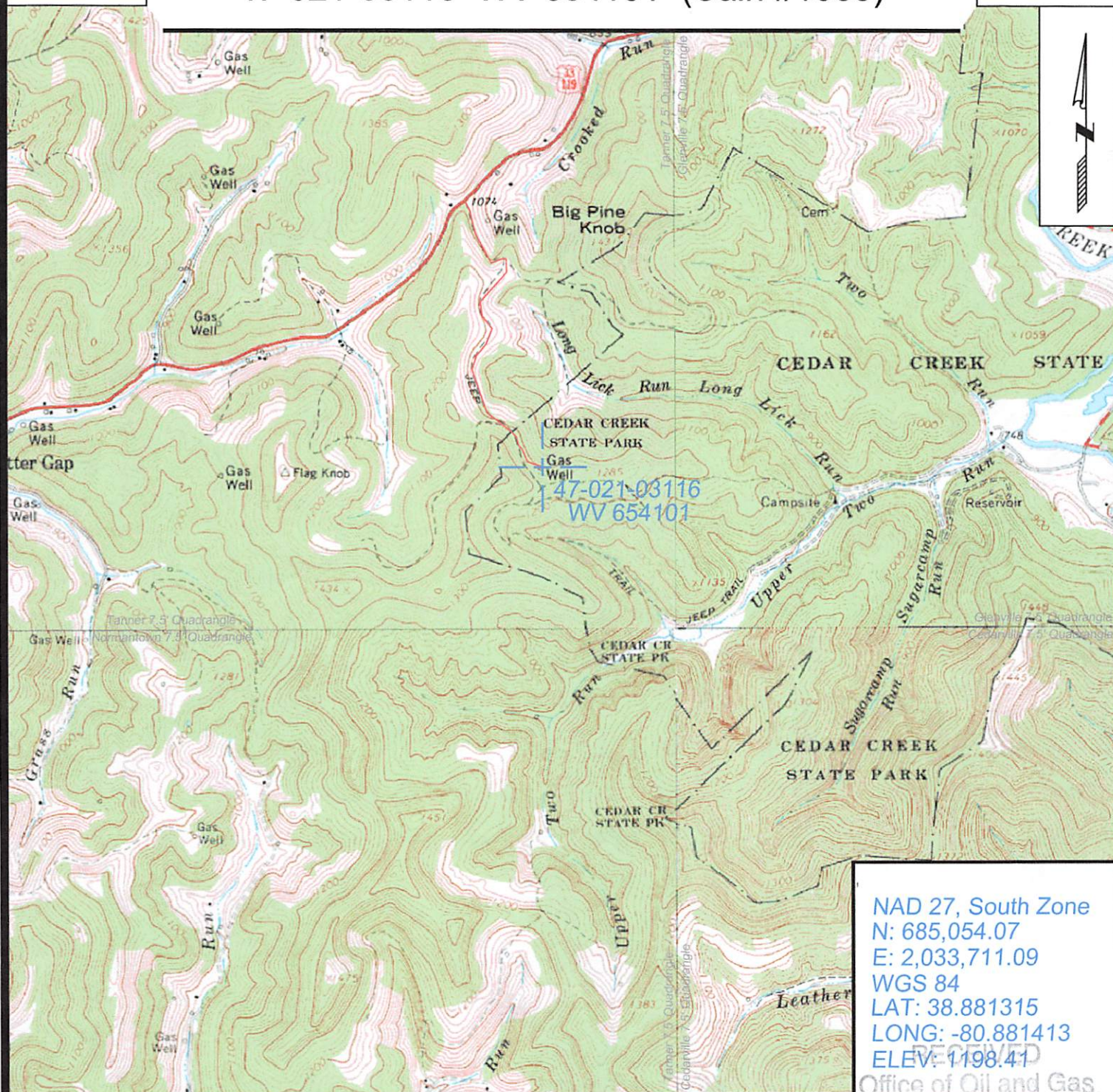
Title: Oil & Gas Inspector Date: 12-4-13

Field Reviewed? X Yes No

Topo Quad: Tanner 7.5'Scale: 1" = 2000'County: GilmerDate: September 27, 2013District: CenterProject No: 25-19-00-07

47-021-03116 WV 654101 (Cain #1063)

Topo



SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

1-800-482-8606
P.O. BOX 438
BIRCH RIVER, WV 26610
PH: (304) 649-8606
FAX: (304) 649-8608

PREPARED FOR:

EQT Production Company

P.O. Box 280
Bridgeport, WV 26330

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Environmental Protection

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-021-03116 WELL NO.: WV 654101 (Cain #1063)

FARM NAME: A. A. Cain

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Gilmer DISTRICT: Center

QUADRANGLE: Tanner 7.5'

SURFACE OWNER: State of West Virginia

ROYALTY OWNER: A. A. Cain Heirs, et al.

UTM GPS NORTHING: 4303613

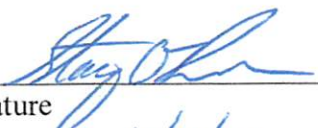
UTM GPS EASTING: 510286 GPS ELEVATION: 365 m (1198 ft)

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

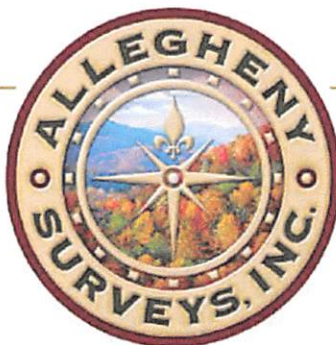
1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:
Survey grade GPS : Post Processed Differential
Real-Time Differential
Mapping Grade GPS X: Post Processed Differential X
Real-Time Differential

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.


Signature
10/3/13
Date

PS # 2180
Title



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY INC.

LEASE NAME AND WELL No. A. A. Cain #1063 - WV 654101 - API No. 47-021-03116

POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 654101.

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Office of Oil and Gas

ALUM CREEK OFFICE
P.O. Box 108 • 1413 Childress Road
Alum Creek, WV 25003
phone: 304-756-2949 fax: 304-756-2948

BIRCH RIVER OFFICE
P.O. Box 438 • 237 Birch River Road
Birch River, WV 26610
phone: 304-649-8606 fax: 304-649-8608

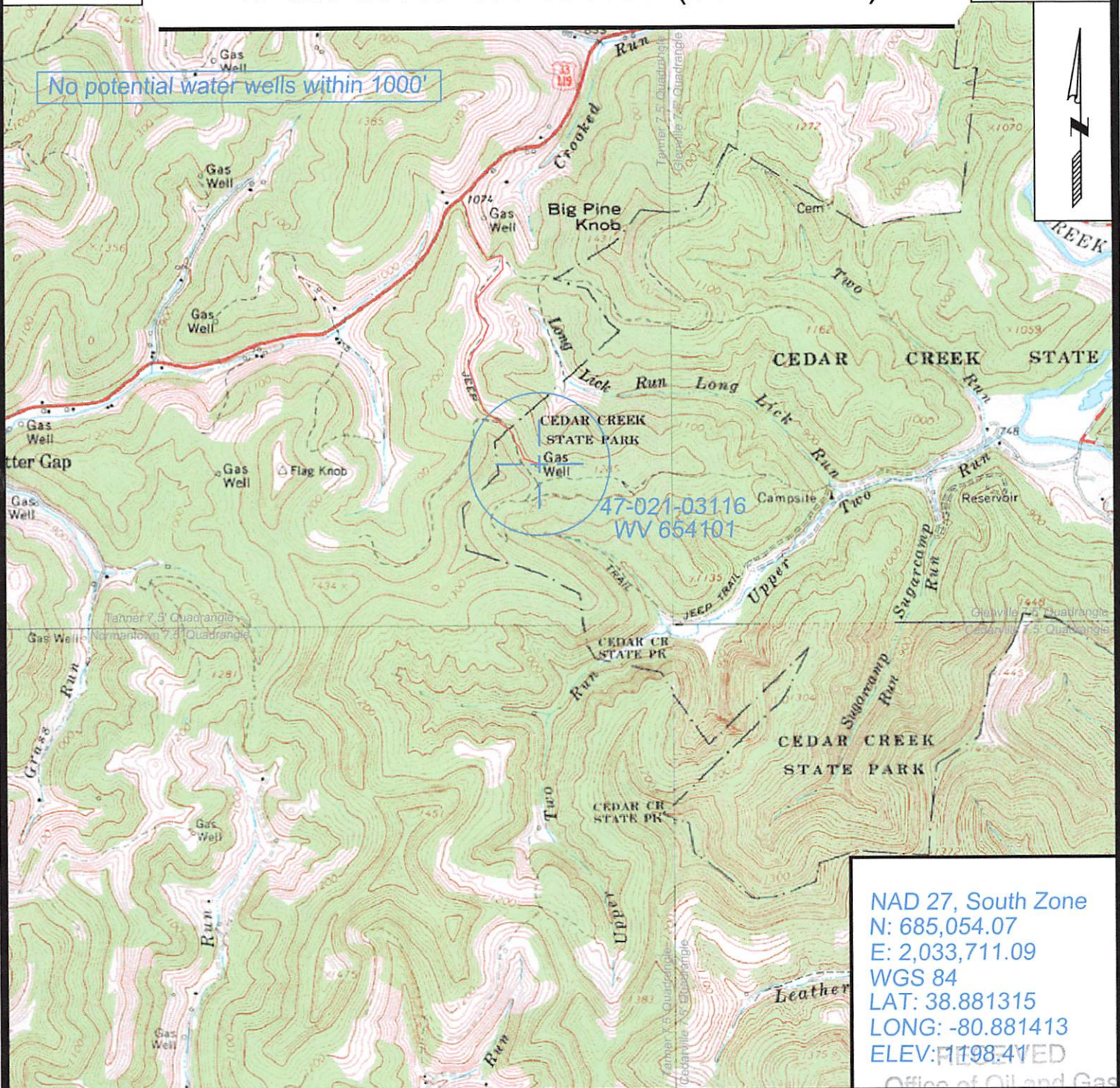
BRIDGEPORT OFFICE
172 Thompson Drive
Bridgeport, WV 26330
phone: 304-848-5035 fax: 304-848-5037

Environmental Protection

Topo Quad: Tanner 7.5' Scale: 1" = 2000'
 County: Gilmer Date: September 27, 2013
 District: Center Project No: 25-19-00-07

Water

47-021-03116 WV 654101 (Cain #1063)



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 1-800-482-8606
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 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:

EQT Production Company

P.O. Box 280
 Bridgeport, WV 26330

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